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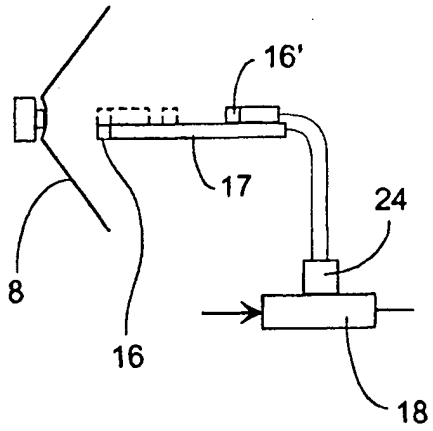
(54) Title: ENVIRONMENT ADAPTABLE LOUDSPEAKER



(57) Abstract

It is known to make the performance of a loudspeaker "environment adaptive" in controlling a filter unit based on a measurement of the velocity/acceleration of the loudspeaker diaphragm and the associated sound pressure in front of the diaphragm, by means of an accelerometer and a microphone, respectively, thereby determining the radiation resistance of the diaphragm. The two sensors have to exhibit a constant transfer function throughout the life time of the loudspeaker, which make them very expensive. With the invention it has been found that the accelerometer can be replaced by another microphone held in a small distance from the diaphragm, and this conditions the possibility of using the same microphone for both measurements, e.g. simply by physically moving the microphone from one position to another. It will then no longer be required to use long-time stable sensors, whereby the price of the sensor equipment can be reduced dramatically. Also alternative arrangements are disclosed.